**Wage Project: Algebra 1**

**Guiding Question:** Do wages influence our lifestyles, or do our lifestyles influence our wages?

**Standards**

General

* REI.1 Explain each step in solving simple equations from the equality of numbers asserted at the previous step
* Construct a viable argument to justify a solution method.

Create Equations

* CED.2 Write the equation of a line given a relationship: Table, points or graph

Graph equations, including labels and scales.

* CED.1 Model a real-world problem with an equation or inequality

Use the equation to solve the problem.

How many hours of work will it take to buy a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

Units

* N-Q.2 Define appropriate quantities for the purpose of descriptive modeling (using appropriate units to represent the model).

Scale

* N-Q.1 Choose the scale and the origin in graphs and data displays

Interpret the scale in graphs and data displays

Slope

* SSE.1 Interpret parts of an expression, such as terms and coefficients
* F-IF.6 Calculate slope from a symbolic function, table or graph

Interpret the rate of change in terms of the context

Constraints

* CED.3 Represent constraints of an equations in terms of a context. Use these constraints to determine if a solution is reasonable.

Use these constraints to determine if a solution is reasonable

Solutions

* REI.10 Demonstrate understanding that the graph of an equation is all solutions

“Pick 3 points of interest on the graph and describe their meaning in context.”

**In Class Thursday 9/19**

* Work in a groups to:
  + - Brainstorm a local job that has the given hourly wage.
    - Determine any initial money situations. (Does your employee need a few new outfits for a uniform/dress code? Did your employee accumulate a savings during high school or college? Etc.)
    - Select one large expense to research. (Buying a tv, couch, going to the dentist, buying new tires, …etc.)
* Work as pairs
  + - Both need to complete the expense table.

**In Class on Friday 9/20**

* Work in groups to:
  + - Check work and make sure everything is consistent.

**In class on Monday 9/23**

* Work as pairs
  + - Both need to complete their own Glogster.
      * Include the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hourly Wage:** | **Job Title:** | |  | |
|  | *Positive or Negative Funds?* | | Description/ Justification | |
| Initial Financial Status | $ | |  | |
| Significant Financial Expense | $ | |  | |
| **How many hours of work will it take to buy a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?**  *(Significant Financial Expense)* | | | | |
| **Identify Variables** | X=  Y= | | | |
| **Make a Table** | **Title**   |  |  | | --- | --- | | **Variable** | **Variable** | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | | | |
| **Calculate the Slope**  *(Type all work)* | M= | | | |
| **Create and Equation** | Y = mX + b | **Describe what *m* and *b represent in respect to your job*** | | *Description Here* |
| **Make a Graph**  *(Using Microsoft Mathematics)* | *Insert Graph here* | | | |